

AERIAL CABLE REMOVAL

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1. GENERAL

1.01 This section covers methods recommended for removing aerial cable. It is not possible to cover in this section a detailed procedure for removing aerial cable in every situation; however, the principles outlined herein, if adhered to, will assure a safe and efficient aerial cable removal operation.

1.02 This section is reissued to include methods for removing lashed aerial cable and to generally update the methods for removing cable in rings. Since this is a general revision arrows ordinarily used to indicate changes have been omitted.

1.03 Before removing cable that is being considered for reuse, the cable sheath should be inspected to determine its condition. In general, lead sheath cable in rings should not be considered for reuse since ring cuts and the effects of expansion and contraction at the poles weaken the sheath to the extent that each of these points of wear is a potential sheath defect. Lashed lead sheath cable that was initially placed in rings should be carefully inspected for these same potential defects.

1.04 The determination of whether cable will be scrapped or reused will, to some extent, dictate the method of removal since cable to be salvaged for reuse must be removed in a manner that will not damage the cable. The most efficient way to remove cable, generally, is to use hydraulically powered equipment, such as the Hogg-Davis Cable Removal Unit or the AT-8490 Cable Take-up Drive, to gather onto a cable reel the cable or cable and strand that is being removed. The basic methods for removing aerial cable are:

- (a) Cable and strand to be scrapped; in rings or lashed—lower cable and strand intact to the ground and take up on powered cable reel.
- (b) Cable to be scrapped or salvaged for reuse; in rings or lashed—place blocks on strand as lashing wire or rings are removed, pull cable onto powered cable reel, remove strand.
- (c) Cable to be scrapped or salvaged for reuse; in rings or lashed—lower cable to ground as rings or lashing wire are removed, take up cable on powered cable reel, remove strand.
- (d) Cable and strand to be scrapped; lashed—support cable and strand in blocks at poles and pull cable and strand onto powered cable reel.
- (e) Cable to be scrapped or salvaged for reuse; in rings—pull cable out of rings onto powered cable reel, remove strand.

1.05 All pole mounted equipment (terminals, coil cases, protector mountings, etc) associated with the cable should be removed before starting to remove the cable. If the cable and strand are lowered to the ground, strand mounted equipment may be left for scrap or removed for salvage as desired. If the cable is to be pulled through blocks or out of rings, all strand mounted equipment, splices, etc, should be removed before starting to remove the cable. The stub cables of any terminals, coil cases, etc, to be held for reuse should be cut as close to the splice as possible and the stub cable ends properly sealed against the entrance of moisture as soon as practicable after removal.

1.06 Before beginning the cable removal operation review the sections in Division 620 of the Bell System Practices that relate to working from strand or pole supported equipment, testing poles, and temporarily supporting poles. Refer to Division 621 regarding placement of guys when temporarily snubbing tensioned strand. If a cable car is to be used, test the strand in accordance with the procedures covered in Section 627-295-500. Since the removal of cable and strand may require the use of such items as aerial cable guides, snatch blocks, wire rope snatch blocks, support rings, cable blocks, sheave supports, strand pullers, chain hoists, and other tools and equipment, the appropriate sections in Divisions 081 and 627 should be reviewed to assure a good knowledge of the proper use and safe working loads for tools or items of equipment used.

1.07 When removing aerial cable and strand there are two load factors that need to be known: (1) actual tension on the strand and (2) the combined weight of the cable and strand. The strand tension needs to be known in order to select tools and equipment capable of safely holding and relieving the tension. Use the B Strand Dynamometer covered in Section 627-240-200 to determine strand tension. Use the combined weight of cable and strand to determine the load actually supported at any given point so the safe load limits of tools or equipment used to support or lower the load will not be exceeded. To determine the load supported at any given point, when the weight per foot of the cable and strand is known, calculate half the total number of feet of cable suspended in each direction from the point of support and multiply this amount by the combined weight per foot of the cable and strand, in accordance with the examples in Fig. 1. Obtain cable weights from the 626 Division of the

Bell System Practices. Strand weights are given in Table A. If the weight of the cable is not known, determine the strand size and then use the appropriate equipment as shown in Table B to suspend or lower aerial cable and strand if no more than three spans are to be supported (two spans in one direction and one span in the opposite direction from point of support). For more than three spans, use the next larger size blocks. Regardless of cable size, the combined weight of cable and strand (three spans) will not exceed the capacities of the equipment shown in the table if the span lengths do not exceed the maximum allowable span lengths for light loading areas as specified for strand selection in Division 627.

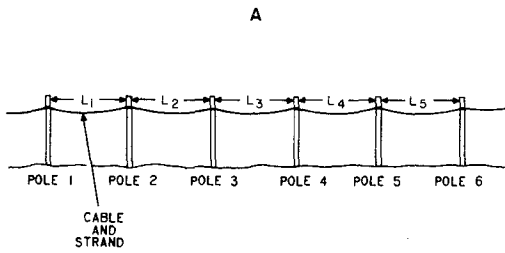
**TABLE A
STRAND SIZE AND WEIGHT**

STRAND SIZE	WEIGHT PER FOOT (LB)
6M	0.225
6.6M	0.120
10M	0.270
16M	0.390

**TABLE B
EQUIPMENT REQUIREMENTS FOR SUPPORTING CABLE AND STRAND DURING AERIAL CABLE REMOVAL (MAXIMUM-THREE SPANS SUPPORTED)**

STRAND SIZE	TACKLE BLOCKS*		
	SIZE	NO. OF SHEAVES	MANILA ROPE SIZE
2.2M 6M 6.6M	3-inch	2	3/8-inch
10M	4-inch	3	1/2-inch
16M	6-inch	3	3/4-inch
25M	Use winch line and wire rope snatch blocks for supporting or lowering any size cable on 25M strand.		

***Note:** The pounds of pull required on the fall line to hold the maximum load must be considered and adequate manpower provided.



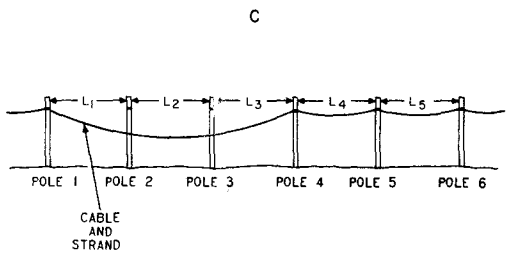
TO DETERMINE THE LOAD ON POLE 2 WITH CABLE AND STRAND SUPPORTED ON ALL POLES USE THE FOLLOWING FORMULA:

$$\frac{L_1 + L_2}{2} \times P = \text{LOAD}$$

L = SPAN LENGTH
P = POUNDS PER FOOT OF CABLE AND STRAND

EXAMPLE- IF ALL SPANS ARE 150 FT AND THE WEIGHT OF THE CABLE AND STRAND IS 2.5 LBS PER FOOT THEN:

$$\frac{L_1 + L_2}{2} \times P = \frac{150 + 150}{2} \times 2.5 = 375 \text{ LBS}$$



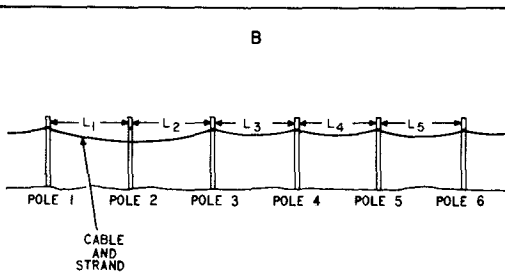
TO DETERMINE THE LOAD ON POLE 4 WITH THE CABLE AND STRAND SUSPENDED BETWEEN POLES 1 AND 4 USE THE FOLLOWING FORMULA:

$$\frac{L_1 + L_2 + L_3 + L_4}{2} \times P = \text{LOAD}$$

L = SPAN LENGTH
P = POUNDS PER FOOT OF CABLE AND STRAND

EXAMPLE- IF ALL SPANS ARE 200 FT AND THE WEIGHT OF THE CABLE AND STRAND IS 2.8 LBS PER FOOT THEN:

$$\frac{L_1 + L_2 + L_3 + L_4}{2} \times P = \frac{200 + 200 + 200 + 200}{2} \times 2.8 = 1120 \text{ LBS}$$



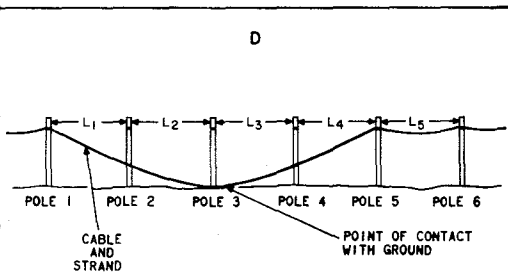
TO DETERMINE THE LOAD ON POLE 3 WITH THE CABLE AND STRAND SUSPENDED BETWEEN POLES 1 AND 3 USE THE FOLLOWING FORMULA:

$$\frac{L_1 + L_2 + L_3}{2} \times P = \text{LOAD}$$

L = SPAN LENGTH
P = POUNDS PER FOOT OF CABLE AND STRAND

EXAMPLE- IF ALL SPANS ARE 150 FT AND THE WEIGHT OF THE CABLE AND STRAND IS 2.5 LBS PER FOOT THEN:

$$\frac{L_1 + L_2 + L_3}{2} \times P = \frac{150 + 150 + 150}{2} \times 2.5 = 562.5 \text{ LBS}$$



TO DETERMINE THE LOAD ON POLE 5 WITH THE CABLE AND STRAND SUSPENDED BETWEEN POLES 1 AND 5 BUT TOUCHING THE GROUND AT POLE 3 USE THE FOLLOWING FORMULA:

$$\left(L_3 + L_4 + \frac{L_5}{2} \right) \times P = \text{LOAD}$$

L = SPAN LENGTH
P = POUNDS PER FOOT OF CABLE AND STRAND

EXAMPLE- IF ALL SPANS ARE 250 FT AND THE WEIGHT OF THE CABLE AND STRAND IS 3.6 LBS PER FOOT THEN:

$$\left(L_3 + L_4 + \frac{L_5}{2} \right) \times P = \left(250 + 250 + \frac{250}{2} \right) \times 3.6 = 2250 \text{ LBS}$$

NOTE:
L₃ + L₄ EQUALS TOTAL LENGTH OF CABLE FROM POINT OF SUPPORT TO POINT OF CONTACT WITH GROUND

Fig. 1—Methods of Determining the Load on a Pole

2. PRECAUTIONS

2.01 During cable or stand removal operations on joint use pole lines and on nonjoint sections involving power crossings, all workmen must wear insulating gloves and avoid body contact with strand, cable, and other apparatus that may come in contact with the strand or cable. All other personal protective equipment must be worn as prescribed by company policy.

2.02 All work areas must be guarded in accordance with the instructions in Division 620 of the Bell System Practices. When testing strand or poles (Sections 627-295-500, 620-131-010, 620-132-010), be sure the area is adequately guarded and persons, vehicles, or equipment are not under the strand or in a position where injury or damage could occur if the strand or pole should fail during the test.

2.03 During strand removal operations at a corner pole where the strand pulls away from the pole, all work should be conducted from a position outside of the corner.

2.04 In any situation where removing the cable or strand or releasing strand tension will impose an unbalanced load on a pole, a compensating guy shall be placed. Any pole selected to hold a load must be in good condition as determined by actual inspection and testing.

2.05 Do not impose shock loads on poles. When lowering cable and strand, lower them slowly. Do not allow them to drop. Before cutting strand, tension on the strand must be held by a chain hoist, winch line, or blocks, so that after cutting the strand, tension can be relieved gradually.

2.06 When using the AT-8490 Cable Reel Take-up Drive, the Hogg-Davis Cable Removal Unit, or other similar equipment that uses the cable reel as a winch, use only the standard toroidal reels.

3. AERIAL CABLE REMOVAL METHODS

3.01 Before starting actual cable removal, remove all pole mounted terminals, protectors, coil cases, etc, and associated mounting hardware.

Remove distribution terminals and lower them to the ground with a handline. Remove cross-connecting terminals by first removing pole seats or balconies. The seats and balconies must be supported by block and tackle from a fabric sling, rope sling, or construction chain placed above the cross-connecting terminal, or by the truck derrick or winch line, before loosening the supporting bolts, etc. When mounting hardware has been removed, lower the seat or balcony to the ground. The cross-connecting terminal should be supported as shown in Fig. 2 before removing any of the mounting hardware. After it is supported, cut the cable, remove all mounting hardware, and lower the terminal to the ground. To remove coil cases support them with the winch line or derrick as shown in Fig. 3, 4, or 5, remove all mounting hardware, and lower the coil case to the ground.

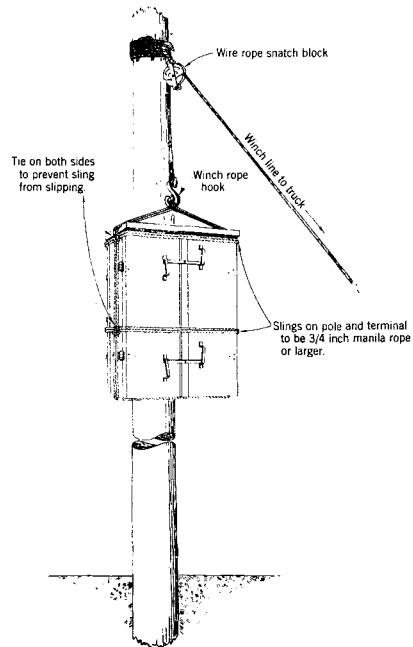


Fig. 2—Removing a Cross-Connecting Terminal

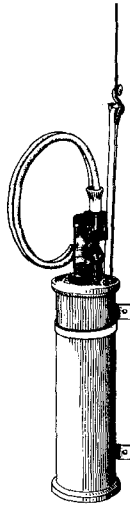


Fig. 3—Supporting Coil Case With Winch Line

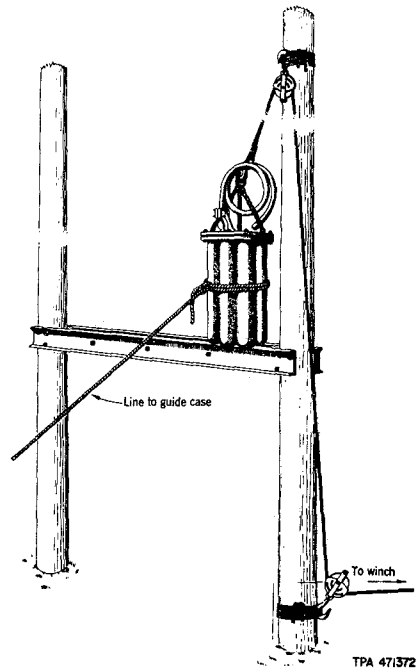


Fig. 5—Lowering Coil Case From Supporting Fixture

Note: Terminals and coil cases may be supported and lowered using block and tackle. However, the block and tackle must be of proper size to support the load and sufficient manpower must be available to handle the load once it is suspended.

LOWERING CABLE AND STRAND TO THE GROUND

3.02 Removing aerial cable and strand by lowering them intact to the ground may be used for removing cable that is lashed or in rings. The basic steps are as follows:

- (1) At in-line poles, loosen all of the suspension clamps, then release the strand from the clamps and lower the cable and strand slowly to avoid imposing shock loads on adjacent poles.
- (2) At corner poles, remove cable supports, spacers, lashing wire clamps, grade clamps,

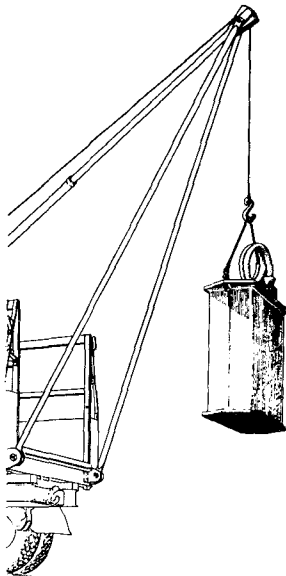


Fig. 4—Supporting Coil Case With Truck Derrick

cable rings, and any other such items within reach of a workman on the pole. Loosen the suspension clamp just enough to allow the strand to slip through the clamp.

- (3) At dead end poles, use a strand puller and winch line (Fig. 6) or chain hoist to hold strand tension. Remove the strand dead end, and pay out the winch line to slowly lower the cable and strand to the ground. If a chain hoist was used to hold strand tension, lower the cable and strand with tackle blocks.

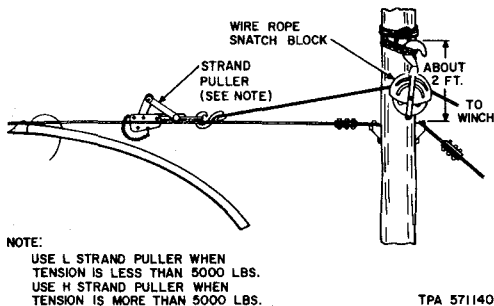


Fig. 6—Holding Strand Tension With Winch Line

- (4) Remove the strand from the clamps at the corner poles and lower the cable and strand to the ground
- (5) Take up the strand and cable onto a cable reel driven by an AT-8490 Cable Reel Take-up Drive or other similar equipment.

REMOVING CABLE USING BLOCKS TEMPORARILY PLACED ON STRAND

3.03 The method of removing cable by temporarily supporting it in cable blocks placed on the strand may be used where cable is lashed or in rings in areas where because of obstructions the cable cannot be lowered to the ground or it is desired not to lower it. The basic steps are as follows:

- (1) Remove lashing wire by using the Lashing Wire Remover (see Section 627-380-245). Remove rings by working from aerial lift truck, aerial ladder, or other appropriate means. As the lashing wire or rings are removed, place

cable blocks on the strand to support the cable. The blocks should be placed at short enough intervals to prevent excessive sagging. At corner poles where pull is toward the pole, use a Corner Cable Guide (Section 627-300-200). Where pull is away from the pole, place an H Cable Block (formerly a one-sheave block) on the strand. Where there is a grade, leave sufficient grade clamps or provide a means for holding the cable so it will not slide out of the blocks until all removal preparations are completed.

- (2) At the pulling end, place an H Cable Block or an aerial cable guide on the strand, a cable grip or core hitch on the end of the cable, and the pulling line through the block or cable guide. If the winch line is used as the pulling line, use a swivel between the cable grip and the winch line.
- (3) Pull a sufficient amount of cable to allow the cable to be attached to the cable reel. Detach the pulling line, remove the cable grip, and attach the cable to the reel.
- (4) Pull the cable using the AT-8490 or similar equipment. If powered equipment to turn the reel is not available, pull the cable by moving the truck forward as far as practicable.
- (5) Remove the strand using the method covered in Part 4.

LOWERING CABLE TO GROUND LEAVING STRAND IN PLACE

3.04 The method of removing cable by lowering it to the ground while leaving the strand in place may be used where the cable is lashed or in rings and it is desirable to separate the cable from the suspension strand. The basic steps are as follows:

- (1) Remove lashing wire by using the Lashing Wire Remover (Section 627-380-245). Remove rings by working from an aerial lift truck, aerial ladder, or other appropriate means. Place a cable guide on the strand so that as the lashing wire or rings are removed the cable will be lowered to the ground through the cable guide (See Fig. 7).
- (2) Take up the cable onto a cable reel. If the cable can be pulled over the ground, that is if the possibility of damaging the sheath

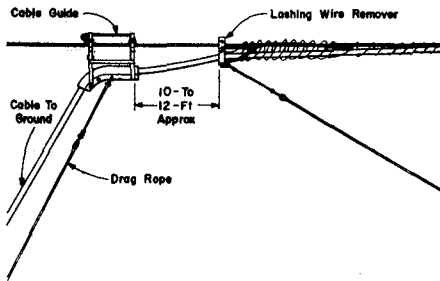


Fig. 7—Method of Lowering Cable To Ground

need not be considered, the best method of picking up the cable is to use the AT-8490 Cable Reel Take-up Drive or other similar equipment.

- (3) Remove the strand using the method covered in Part 4.

REMOVING CABLE AND STRAND USING BLOCKS TEMPORARILY PLACED ON POLES

3.05 Lashed cable and strand being removed from a location where it cannot be lowered to the ground can be pulled through cable blocks at each pole using a powered reel. The basic steps for this method of removal are as follows:

- (1) Loosen the suspension clamps at each pole between dead ends just enough to permit the strand to slip through. Remove cable supports, spacers, lashing wire clamps, etc.
- (2) At each pole between the dead ends, transfer the strand and cable from the suspension clamp to a cable block used with the appropriate cable block frame (Section 081-410-108) mounted as part of the transfer operation.
- (3) At dead ends, hold tension with strand puller and winch line or chain hoist. Remove the strand dead end. Introduce sufficient slack to relieve tension. Place a cable block on each end pole, attach a pulling line on the pulling end of the cable and a drag line on the other end and pass the pulling and drag lines through their respective blocks placed at the end poles.
- (4) While maintaining tension on the drag rope, pull a sufficient amount of cable to permit the cable to be attached to the powered cable

reel. Complete the pull with the powered reel (AT-8490 or equivalent) while maintaining tension on the drag line to prevent excessive sagging of the cable.

PULLING CABLE OUT OF RINGS LEAVING STRAND IN PLACE

3.06 The method of removing cable in rings by pulling the cable out of the rings while leaving the strand in place may be used where, because of obstructions, the cable cannot be lowered to the ground or where it is desirable to separate the cable from the suspension strand. The basic steps are as follows:

- (1) Remove grade clamps, aerial cable supports, ties, and bonds. On steep grades, leave a sufficient number of grade clamps to keep cable from sliding out of the rings until removal preparations are complete.
- (2) Cut the cable at splices, pressure plugs, etc, as close to the end of the sleeve as possible.
- (3) Place an H Cable Block at each pole on the side away from the pulling line.
- (4) Pull cable directly onto cable reel using the AT-8490 Cable Reel Take-up Drive or other similar equipment.
- (5) Remove the strand using the method covered in Part 4.

REMOVING CABLE IN RINGS CROSSING OVER POWER CONDUCTORS, RAILROADS, OR HEAVILY TRAVELED HIGHWAYS

3.07 When removing cable in rings crossing over power conductors, railroads, or heavily traveled highways use essentially the same procedure for each operation. The steps for removing aerial cable in rings crossing over power conductors are as follows:

- (1) Place H Cable Blocks in the crossing span at intervals of 10 feet or less for a distance of at least 20 feet on either side of the power facility (Fig. 8). Blocks are placed to prevent the cable from coming in contact with the power conductors if the rings should break. Blocks may be placed from an aerial lift truck, extension ladder, or cable car. If it is necessary to use

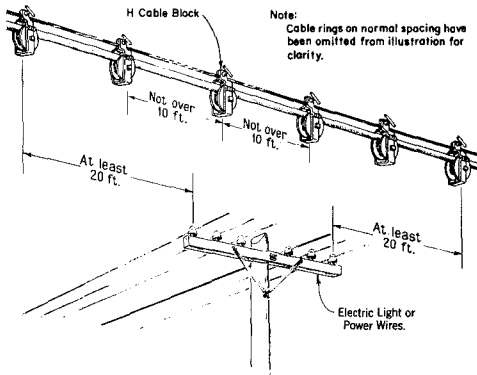


Fig. 8—Cable Blocks in Place in Crossing Span

a cable car and there is insufficient clearance between the cable and power conductors to permit riding the existing strand or if there is any question about the safety of riding the existing strand, place a new suspension strand paralleling the old one to facilitate placing the cable blocks.

(2) Cut the cable near each of the crossing poles.

Place a cable grip or core hitch on the pulling end and a wire loop or core hitch on the other end of the cable for attaching a drag line. The drag line should be equal in length to the length of the crossing span plus the length of the adjacent span plus the height of the cable above ground (See Fig. 9).

Note: All ropes used in the removal of cable or strand crossing over power must be free of metallic strand and as dry as practicable. Use 1/2- or 5/8-inch manila or plastic ropes for cable or strand removal.

(3) Pull the cable by attaching the pulling line to the cable grip. Maintain tension on the drag line to prevent the end of the cable from falling into the power conductors if any of the rings should fail. Do not pull the drag line out of the rings. Remove the cable blocks. Draw the drag line taut and attach it as shown in Fig. 10. Remove the strand as covered in Part 4.

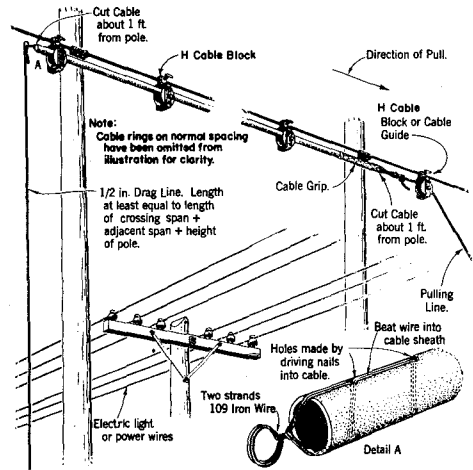


Fig. 9—Cable in Rings Ready to Pull From Crossing Span

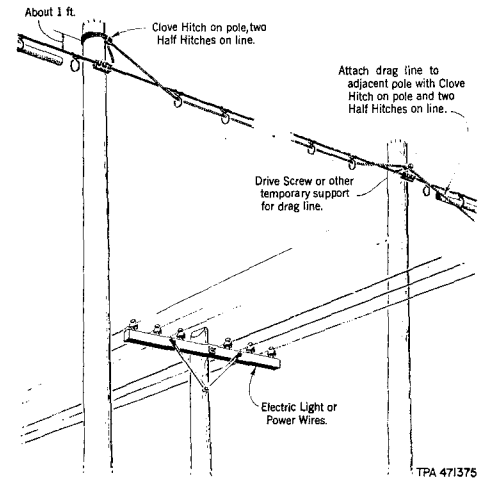


Fig. 10—Drag Line Secured in Preparation for Removing Strand

REMOVING LASHED CABLE CROSSING OVER POWER CONDUCTORS, RAILROADS, OR HEAVILY TRAVELED HIGHWAYS

3.08 When removing lashed cable crossing over power conductors, railroads, or heavily traveled highways use essentially the same procedure for each operation. The steps for removing lashed aerial cable crossing over power conductors are as follows:

- (1) Use the B Lashing Wire Remover to remove the lashing wire. As the lashing wire is removed, place H Cable Blocks to support the cable.
- (2) Cut the cable near the crossing poles. Place a cable grip on the pulling end and a wire loop or core hitch on the other end of the cable for attaching the drag line.

Note: All ropes used in the removal of cable or strand crossing over power must be free of metallic strands and as dry as practicable. Use 1/2- or 5/8-inch manila or plastic ropes for cable or strand removal.

- (3) Attach a pulling rope to the pulling end of the cable and a drag rope and an additional rope to be used as a ring rope to the other end of the cable. The ring rope must be more than twice as long as the length of the crossing span.
- (4) Pull the cable out of the span while maintaining tension on the drag rope to keep the end of cable from dropping down as it passes over the cable blocks.
- (5) Detach the drag and ring ropes from the end of the cable. The drag rope, which will now be used as a support rope, should be lifted from the blocks, pulled taut, and secured on each crossing pole about one foot above the strand attachment. Lift the ring rope clear of the blocks and secure it at each crossing pole also.
- (6) Remove the cable blocks from the strand. Remove the strand as covered in Part 4.

4. REMOVING STRAND

4.01 Where the strand does not cross over power conductors, railroads, or heavily traveled

highways, and other conditions permit, the most efficient method for removing strand is to lower to the ground the entire length of strand being removed and then use the AT-8490 Cable Reel Take-up Drive, or similar equipment, to take up the strand. The steps for this method of removing strand are as follows:

- (1) At in-line poles, loosen the suspension clamps, if not already done, release the strand from the clamps and lower the strand slowly to avoid imposing shock loads.
- (2) At corner poles, loosen the suspension clamp just enough to permit the strand to slip through the clamp.
- (3) At dead end poles, use a strand puller and winch line or chain hoist to hold strand tension. Remove the strand dead end, relieve the strand tension, and lower the strand to the ground.
- (4) Remove the strand from the clamps at corner poles and lower the strand to the ground.
- (5) Take up the strand with AT-8490 Cable Reel Take-up Drive or similar equipment.

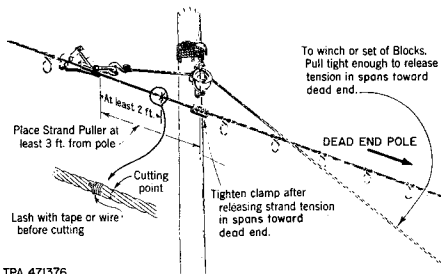
4.02 Where conditions do not permit lowering all spans to the ground between dead ends before beginning the take-up operation, use the following method:

- (1) At all poles between dead ends, loosen the suspension clamps just enough to permit the strand to slip through.
- (2) At dead end poles, use strand puller and winch line or chain hoist to hold strand tension. Remove strand dead end and slack off the strand enough to release practically all tension.
- (3) Cut the strand at convenient points for removal. Before cutting, tighten the suspension clamp adjacent to the cutting point to hold the strand in the span adjacent to the one being removed.
- (4) Take up strand with AT-8490 Cable Reel Take-up Drive or similar equipment.

4.03 If it is impracticable to slack off the strand at the dead end because of its crossing over

power conductors, railroads, roadways, highways, etc, use the following method:

- (1) At all poles between dead ends, loosen the suspension clamps just enough to permit the strand to slip through.
- (2) Choose the first pole from the dead end where the strand can be cut and set up the winch line to pull additional tension in the spans away from the dead end (Fig. 11). As tension is pulled, allow the strand to run through the suspension clamps toward the dead end to introduce slack in the spans toward the dead end. Tighten the suspension clamp at the pole where the winch line is set up. Cut the strand on the side of the pole away from the dead end and release the tension in the spans away from the dead end by slacking off on the winch line.



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Fig. 11—Introducing Slack Into Spans Toward the Dead End

- (3) Remove the strand in the spans away from the dead end by following the steps in 4.01 or 4.02. Remove the strand in the spans crossing power conductors, highways, railroads, etc, by following the steps in 4.05, 4.06, and 4.07.

4.04 Where obstructions along the route will not permit lowering the strand to the ground use the following method to remove the strand:

- (1) Loosen the suspension clamps just enough to permit the strand to slip through.
- (2) Relieve strand tension by using blocks or the winch line at the dead ends. Introduce sufficient slack to ensure that practically all strand tension has been relieved.

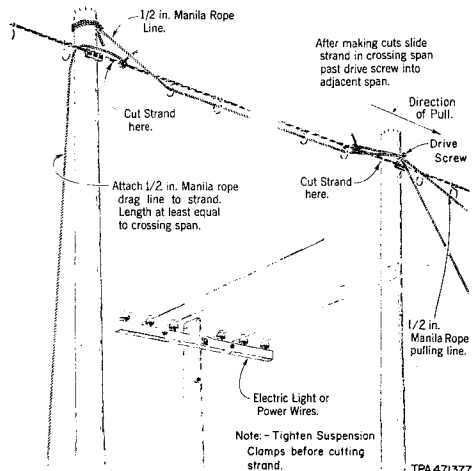
- (3) Support the strand in blocks placed at the poles supporting those spans being removed that cannot be lowered to the ground.
- (4) Retighten the suspension clamps at the first pole beyond each end of the length of strand supported in blocks.
- (5) Set up for pulling at one end of the length of strand supported in the blocks and provide for attaching drag line to the other end. Cut the strand about two feet from the suspension clamps. Maintain some tension with the drag line as the strand is pulled to prevent the end of the strand from dropping to the ground.

REMOVING STRAND CROSSING OVER POWER CONDUCTORS, RAILROADS, OR HEAVILY TRAVELED HIGHWAYS

4.05 Before beginning the strand removal operation, remove cable, place the necessary ropes in accordance with the methods covered in 3.07 or 3.08, and **relieve strand tension** in accordance with methods covered in 4.01, 4.02, or 4.03, as applicable.

4.06 To remove strand that supported cable in rings:

- (1) Tighten the suspension clamps at the crossing poles.
- (2) Attach a drag line and a pulling line as shown in Fig. 12.



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Fig. 12—Lines Attached in Preparation for Removing Strand from Power Crossing

(3) Cut the strand at each crossing pole on the side toward the crossing and pull the strand from the crossing span. A workmen must be on the crossing pole toward which the strand is being pulled to pass the cable rings over the drive screw.

4.07 To remove strand that supported lashed cable:

(1) Start the strand removal operation with the support rope in place (tied about one foot above the strand attachment on both crossing poles) and the ring rope over the crossing with the mid-point of the rope held at the first pole. Tighten the suspension clamps on both crossing poles.

(2) At the first pole, attach a B Support Ring to the ring rope and close the large loop of the support ring around the strand and the support rope. Pull the ring rope from the second pole to move the support ring about 3 feet into the crossing span. At the first pole, attach a second B Support Ring to the ring rope and close the large loop of the ring around the strand and support rope. Attach additional B Support Rings in the same manner, at three foot intervals, until the rings are positioned across the entire span. Tie the ring rope on both crossing poles below the strand (see Fig. 13).

(3) About 3 feet out from the first crossing pole, tape a 1/4-inch rope tightly to the

strand to serve as a drag rope. About 3 feet out from the second pole, tape a 1/4-inch rope tightly to the strand to serve as a pulling rope.

(4) Attach cable blocks (Section 081-410-108) above the strand on both crossing poles and place the drag rope and the pulling rope in their respective blocks.

(5) Apply slight tension on the pulling and drag ropes and cut the strand at each pole at a point between the pole and point of attachment for the rope.

(6) Pull the strand through the support rings while maintaining enough tension on the drag rope to keep the end of the strand from dropping down.

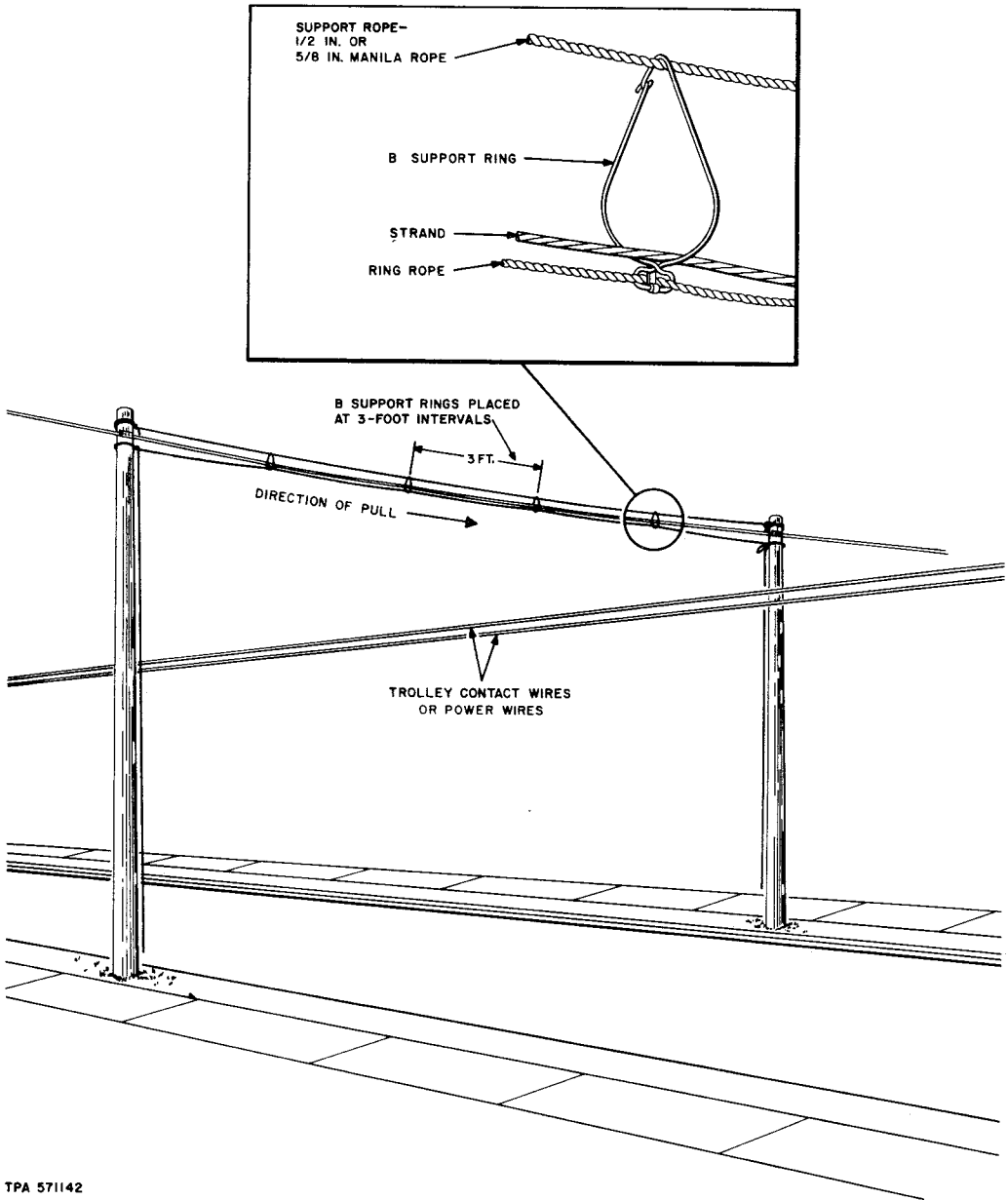
(7) To remove the ring rope, pull it toward the second pole. As the rope is pulled, remove the support rings as they approach the second pole.

(8) Remove the support rope.

5. DISPOSAL OF MATERIAL

5.01 All material shall be disposed of in accordance with local routines.

5.02 Cable and strand removed intact shall be stored on a cable reel to be returned on the reel as junk to the smelter. Cable removed for reuse should be stored on cable reels.



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Fig. 13—Placement of B Support Rings For Removing Strand